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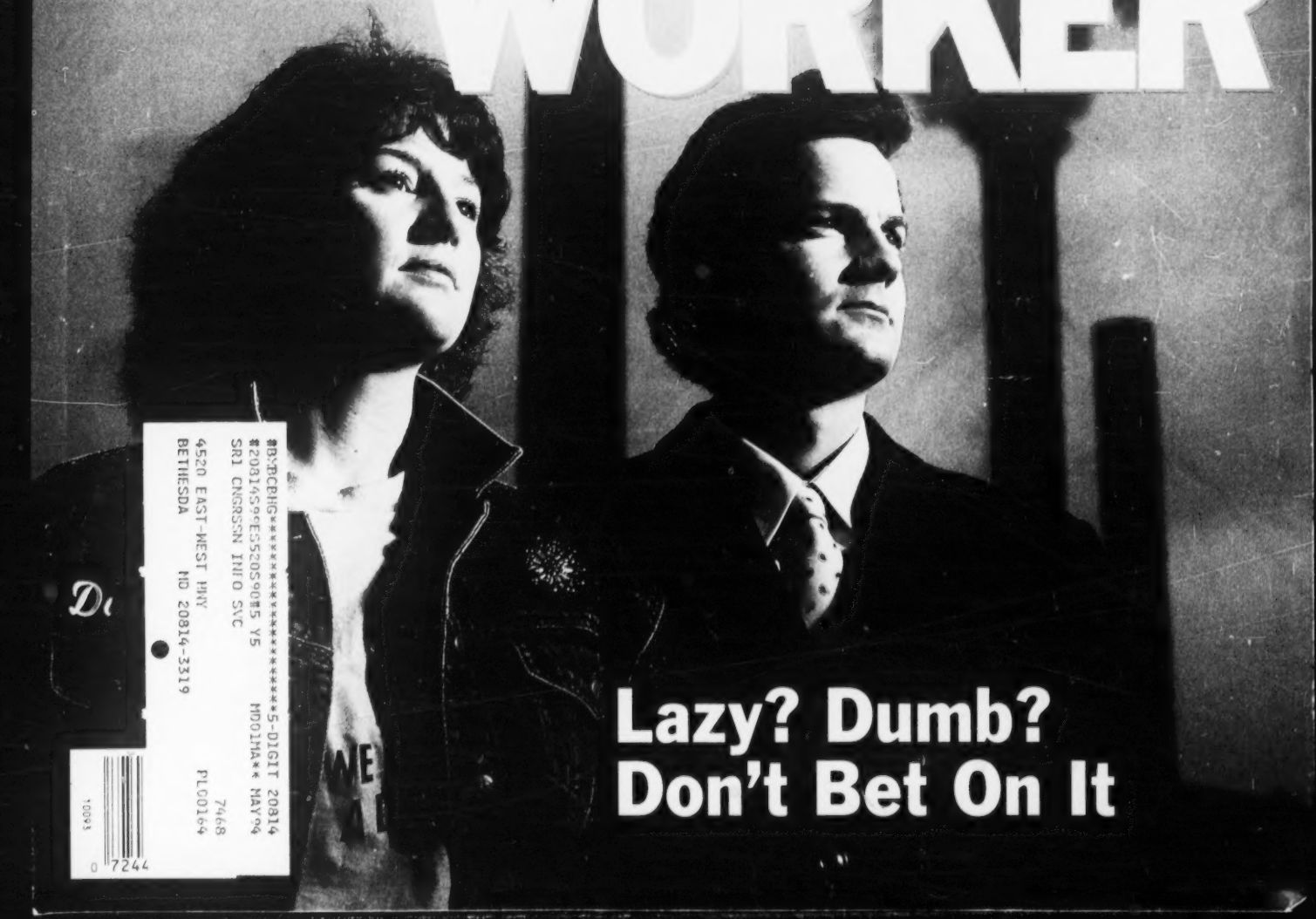
THE TRUTH ABOUT THE AMERICAN WORKER



Lazy? Dumb? Don't Bet On It

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"An organization, with all its greatest muscle—machinery, equipment, money, facilities—can't do anything unless it's got a brain. The brain is the people." 48

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ABOVE: Michael Grundy, an arc furnace operator for Nucor Corp. in Indiana. Photo by Gregory Heisler.

COVER: Darlene Fiorillo, a GM auto assembler, and Steve Magistad, a service rep for IDS Financial Services, also photographed by Heisler.

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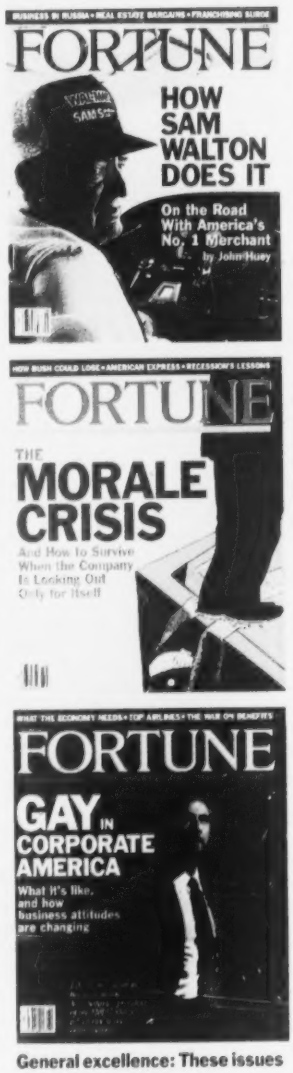
EDITOR'S DESK

IT'S THAT TIME of year again—awards season. In the magazine business, our answer to the Oscars is the National Magazine Awards, sponsored by the American Society of Magazine Editors. And the nearest kin to "best picture" is the coveted award for "general excellence." FORTUNE received this honor in 1988, and this year we have been selected as one of six finalists in our category (circulation 400,000 to one million) out of the hundreds of magazines of that size.

Here's what the ASME screeners said about the three 1991 issues we submitted as our entry: "FORTUNE's investigations may sometimes prove unsettling to readers, but FORTUNE articles speak with the authority of grueling intelligence, and they move readers to action. Articles on gays in corporate America [December 16] and the morale crisis among middle managers [November 18] provide cases in point. In each instance, the magazine probed beneath surface understandings of significant problems facing business, pointing to solutions for forward-looking companies. While daring in tackling controversial issues, FORTUNE also provides insights into individuals and topics of great general interest to people in business. "How Sam Walton Does It" [September 23] is a prime example of basic enterprise journalism that is filled with color, wit, and ideas, and enjoyable to read." Thank you, ASME.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FORTUNE
GAY IN CORPORATE AMERICA
What It's like, and how business attitudes are changing

General excellence: These issues earned FORTUNE's nomination in the National Magazine Awards.

FORTUNE has received many other honors lately. Among them, the cover story "Gay in Corporate America," by associate editor Tom Stewart and reporter Mark Fefer, won the award for outstanding achievement in magazine writing from the Gay and Lesbian Alliance Against Defamation. The article is a finalist in the awards competition of the Deadline Club, a.k.a. the New York City chapter of the Society of Professional Journalists. Our ground-breaking report, based on interviews with more than 100 gay men and women, elicited a huge number of letters from readers, overwhelmingly favorable.

FORTUNE's special report on what business can do to alleviate the crisis in America's schools (October 21) won the Benjamin Fine Award for Outstanding Education Reporting from the National Association of Secondary School Principals. This is the second straight year we have earned this award. We have strived to catalyze discussion on this crucial issue through our articles and the annual FORTUNE Education Summit in Washington, D.C., which brings together leading executives and educators to share ideas for change.

Marshall Loeb

MANAGING EDITOR

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not just health maintenance organizations, effectively employ such managed-care techniques as utilization review and precertification. This is essential in rural areas, where HMOs cannot operate well.

M. JANE HUERTER
Executive Vice President
Mutual of Omaha
Omaha

ECONOMIC PROGRESS VS. ECOLOGY

In "Ecology Battle: North vs. South" (News/Trends, March 9), you say the International Chamber of Commerce wants to preempt the U.N.'s Earth Summit in Rio de Janeiro by holding its own conference beforehand. We prefer to describe our forum as preparing the ground with a realistic assessment of what can be achieved to protect the environment without putting back the clock of economic progress.

Governments cannot cure the world's environmental ills alone. It is for private business worldwide to implement the technological improvements that will make the world cleaner as well as more prosperous.

JOSEPH E. CONNOR
President, International Chamber of Commerce
Chairman, Price Waterhouse World Firm
New York City

ECONOMIC PROGRESS VIA ECOLOGY

Re "How Zealous Greens Hurt Growth . . ." (Fortune Forecast, March 23): In some cases money spent to comply with environmental regulations may indeed reduce employment in the affected industry. But most critiques of such rules that I've seen tend to overlook the most important pollution-control strategy available to us: improved productivity and energy efficiency.

Environmental regulation will hurt us only if it puts us at a competitive disadvantage in the world market—where both Europe and Japan have begun to initiate environmental programs. If American industry wants to compete abroad, it will have to look upon such programs as a business opportunity, not as an economic burden.

JOHN A. LAITNER
Principal
Economic Research Associates
Eugene, Oregon

CORRECTIONS

In "It Was the Worst of Years" (April 20) the chart on the FORTUNE *500's track record should read Current Dollars, not Constant Dollars. And in "The 500 by State" Patrick Danahy has succeeded Dewey Trodgon as CEO of Cone Mills.* F

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THE TRUTH ABOUT THE AMERICAN WORKER

The men and women who run the factories and staff the offices do surprisingly well in the global competitiveness race—but only when managers give them a chance. ■ *by Myron Magnet*

INSULTS HURT MOST when they pierce some secret region of fear and self-doubt. No wonder Americans winced when one of Japan's top politicians sneered earlier this year that U.S. workers are "too lazy" to compete and "cannot even read." For haven't Americans been fretting obsessively over just such anxieties for a decade? Haven't pundits tirelessly preached that failing schools with no standards are producing a shoddily educated generation, that a plague of selfishness and disaffection is undermining the national will? The Japanese politician's contempt brought all these simmering fears bubbling to the surface, explicitly confronting the American public for the first time with this stark question: Can it be that decadence and demoralization really have overtaken the American work force, that the American worker lacks both the knowledge and the character to make late-20th-century technology work its full magic under his or her hands?

DARLENE FIORILLO, 34
Assembler, General Motors
Pontiac, Michigan

"I put them trucks together better than anybody you know."

If so, conventional competitiveness-raising steps such as investment in new plant and equipment can help only so far: A defective work force would cause the nation's power to erode as inexorably as Renaissance Spain's or Victorian England's. Indeed, warns one of the more hysterical prophets of "declinism," the fall is already under way. Is it not emblematic, he asks, that the many American prostitutes working in Tokyo—except for the blondest of them—no longer command a premium for their services, so utterly has the glamour of American power and specialness faded in the eyes of those who know best?

Well, hold the apocalypse, please. The real state of the American worker is very different from this lurid vision. Like everyone else in the new global economy, he or she is struggling to adjust to cataclysmically changed conditions, to a world in which American economic preeminence is no longer unchallenged. From the point of view of the economy as a whole, he is succeeding—so much so that real GDP per person, which grew at an average annual rate of 1.3% between 1979 and 1990, remains the highest in the industrial world, 25% higher than it is in Japan. The paradox is that even as the worker's success augments the national wealth, his own reward hasn't kept pace. As another consequence of the new world economic order, his average real wages have stagnated, even declined.

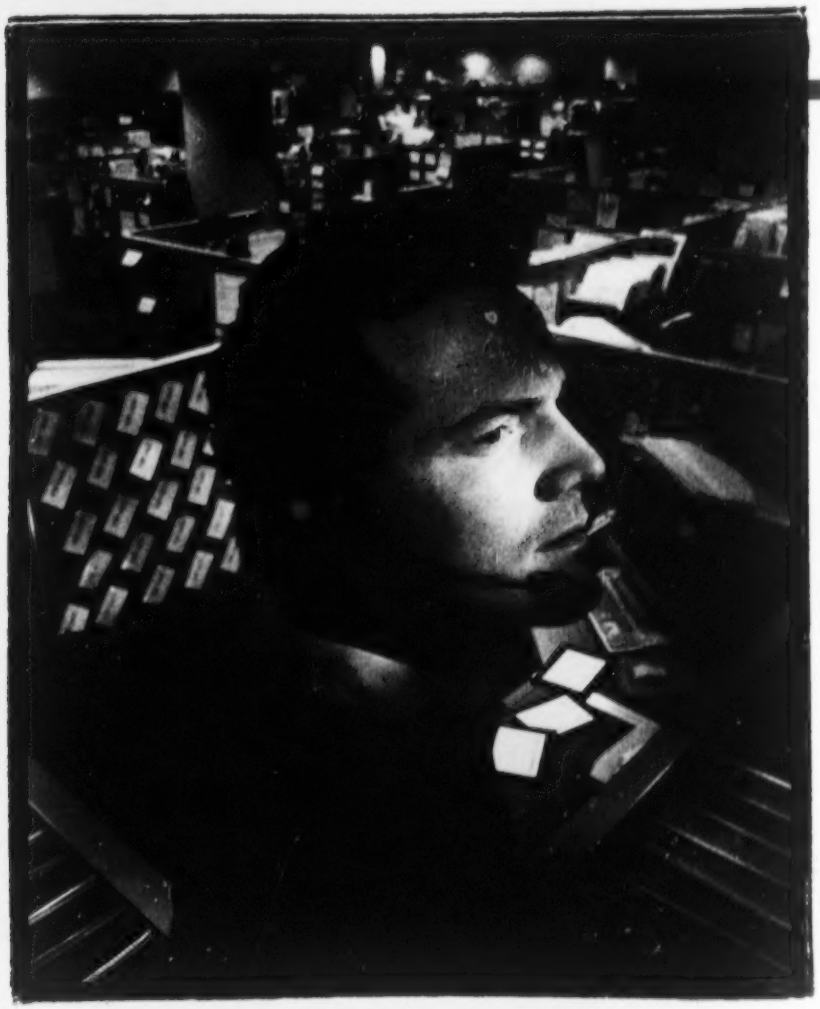
Yet the same formidable global competition is forcing American companies to change in ways that will strengthen the American worker's pride and earning power. Manufacturers especially—which have felt the brunt of the challenge—have turned themselves inside out over the past decade or two to meet it. One radical step many have taken is changing the organization of work to tap more of the worker's faculties than just his hands.

When called upon, workers have measured up. What happens now depends less on them than on their bosses. It depends on company chiefs giving them the training needed to master the technologies of today and tomorrow—and the latitude to use their intelligence fully on the job. More than ever, as Lord White, CEO of Hanson

GARY HARDWICK, 37
Mill Adjuster, Nucor
Crawfordsville, Indiana

"Hopefully, I'll be a supervisor. Everyone here is goal-oriented."

PHOTOGRAPHS BY GREGORY HEISLER



STEVE MAGISTAD, 28
Client Service Representative, IDS
Minneapolis

"My company gives me the chance to go in any number of directions."

PLC's U.S. operations, says, "The men can only be as good as their leaders."

Where does the American worker stand right now? The one luminous measure of how good workers really are is productivity—output of goods and services per person employed—and here the American worker is unequivocally No. 1 among the industrial powers, his overall productivity 30% higher than his Japanese counterpart's and his manufacturing productivity 28% higher. Much rubbish has been written claiming that Japan and the major European nations have surpassed the U.S. in absolute levels of productivity. These claims rest on unadjusted numbers, as misleading as trying to gauge income growth over the years without correcting for inflation.

Exchange rates gyrate wildly, so it is meaningless to make productivity comparisons by taking the yen value of Japan's total output of goods and services, say, and converting it to dollars at current exchange rates. International comparisons make sense only in terms of "purchasing power parity" exchange rates, which peg currencies to their ability to buy a constant basket of goods and services.

Calculated in that way, the U.S. worker's productivity in a wide array of industries looks surprisingly healthy. Everyone knows about the inefficiency of the cosseted Japanese farmer, 52% less productive than the cosseted American farmer. But according to the computations of Harvard economist Dale Jorgenson and his Japanese collaborator, Masahiro Kuroda, Japanese productivity trails that of America by a still wider margin in rubber and plastics, construction, finance, insurance, and real estate. It also lags significantly behind in machinery manufacturing and metal fabricating.

Even productivity in the American automotive industry, Jorgenson calculates, is neck and neck with its Japanese counterpart. However efficient the big Japanese car companies, he points out, they are mostly assembly operations, manufacturing many fewer component parts than the big U.S. automakers. Adding in the less efficient parts suppliers, the industry's productivity is not quite so stellar. Concludes Jorgenson: "The Japanese work force is very high quality, but not as good as ours, measured in terms of the quality of the worker per standardized hour."

THE DECLINISTS are right in saying that American productivity growth dropped off a cliff in the mid-Seventies. But *all* industrialized nations experienced an analogous drop—perhaps due, economists speculate, to the developed world's need to use mountains of capital to adjust to extortionate oil prices.

It's true, too, that productivity expanded more slowly in the U.S. than in other industrial nations for much of the post–World War II era. Since this discrepancy was greatest in the American economy's glorious heyday of the Fifties and Sixties, however, it is scarcely symptomatic of a decline in America or its work force. To the contrary, it was a byproduct of American economic leadership. With undamaged factories and a hoard of technology developed during World War II, the U.S. entered the postwar era with productivity levels four, even five times higher than the ravaged European and Japanese economies, their factories in ruins. Rocketing growth in those nations was a measure of how far they had to come to approach normality. That's why, says economist William Baumol, the industrial countries furthest behind, especially last-ranked Japan, could rebound the fastest. Always playing catch-up, foreign nations could also lift manufacturing productivity by snatching technology the U.S. had already developed.

By the mid-Sixties, as other industrialized countries drew closer to American productivity levels, their gains slowed. In the late Seventies, the German growth rate for manufacturing fell below the American and is still falling. The Japanese rate since 1980 has been virtually identical to the American. International comparisons for services are hazy at best, but in that sector the restructuring that has caused U.S. manufacturing productivity to

REPORTER ASSOCIATE *Andrew Erdman*

grow at well over 3.5% a year since 1985 has only just begun.

Why, then, do things seem worse than they are? America's expectations about rising prosperity were formed during the exhilarating postwar era of unchallenged U.S. economic dominance. For an entire, unrepeatable generation after World War II, U.S. corporations lacked foreign competitors at home and dominated markets abroad. They could sell products as fast as they could make them. To prevent well-organized union workers from shutting down such profitable high-volume production, they kept wages rising, passing along higher costs to seemingly insatiable customers. But when foreign competitors took to the field in strength and made cost a key issue—especially the cost of labor, four times higher for manufacturing in the U.S. than in Japan in 1970 and 17% higher in 1990—American workers' wages slowed and then stopped rising.

The shock waves in manufacturing—the givebacks and two-tier wage scales of the past decade, the decline of union strength, the drop in manufacturing from a quarter to around 16% of total U.S. employment—spread into the service sector too. Other domestic employers of relatively low-skilled labor no longer had to compete with high-paying factories to attract workers.

THE RESULT was that the real wage of the median 25- to 34-year-old male worker, which had surged around 30% in the Fifties and again in the Sixties, grew a mere 1.5% in the Seventies and *fell* 11% in the Eighties. The drop was confined to the less educated: High school graduates' earnings fell almost 15%, while workers with college degrees pocketed increases of more than 7%. For women in that age group, lower skills also meant low pay. Their median wage rose 6.4% in the Eighties, increasing from a mere two-thirds of the median for 25- to 34-year-old men in 1979 to four-fifths in 1989. But almost all the increase went to college grads, whose wages grew 12.3%. Their high school sisters got only a 1.6% gain.

By contrast to the shrinking pay envelopes of young male workers, the median wage of 45- to 54-year-old working men rose 4% in the Eighties—a meager gain, but still a gain. They were old enough to have found unionized manufacturing jobs when they were still available and to keep them because of seniority.

The opposite of lazy, Americans responded to this wage slowdown by working more. They flooded into the labor force, so that today more Americans work for pay than ever—66.3% of the population in 1991, as opposed to not quite 60% in 1950, including resident military forces. Women account for much of the surge: Some 57% worked in 1991, compared with around a third in 1950. By contrast, almost 63% of all Japanese work, and 49% of Japanese women. For Germany the percentage of workers is lower still: 55% of the total population, and only 43% of women.

Not only do more Americans work, they also toil longer hours. Today's 1,890-hour average U.S. work year for all people who hold jobs, though perhaps skewed slightly by the small percentage of yuppies and entrepreneurs who work 100-hour weeks, is 15% higher than 1950's, according to the authors of *Where We Stand*, a soon-to-be-released study of global wealth. Instead of being the shortest among the industrial nations, as in 1950, it is second only to Japan's 2,173 hours and way ahead of last-ranked western Germany's 1,668-hour working year. Those unruffled Germans luxuriate in an average 30 paid vacation days a year; the American worker makes do with a frugal dozen. Here again the Japanese top the scale in industriousness: They get 15.5 vacation days, on average, but they *take* only 8.2.

By toiling more, American workers kept their standard of living the world's highest, and not only by the usual measure of real GDP per person. Americans own one car

CALVIN THOMAS, 35
Assembler, Honda of America
East Liberty, Ohio

"You give us an opportunity to have a say-so, and we can do a good job."

for every 1.73 people, for example, compared with one for every two people in Germany and every 3.5 in car-exporting Japan. True, 60% of Japanese households own their own home, topping the 59% of U.S. households who do. But the average Japanese home costs 8.6 times an average annual income, compared with three times in America, and whether owned or rented the U.S. house averages 1,773 square feet, more than twice the proverbially cramped Japanese home. Perhaps most remarkable, only three out of five of those costly Japanese homes boast a flush toilet (most others use simple commodes with holding tanks), while but one in five comes with central heating.

Besides laboring more, American workers have spent more years in school than ever before. More than half the 1952 work force never made it through high school; last year only 13% hadn't graduated. Over a quarter of today's American work force has a college degree, up from 7.9% in 1952, and an additional 21.3% of American workers today have one to three years of college. Comparable figures for the Japanese work force aren't available, but only 10.7% of all Japanese adults (nonworkers as well as workers) are college grads, half the proportion of American adults. In both countries around two adults in five have only a high school diploma.

Trouble is, all this progress isn't enough in the new economic order. A high school education usually won't get a young American one of the relatively high-paying technician or information-worker jobs that the service sector has been creating at a high rate for the last decade and will go on creating into the new century. And though statistics suggest that today's high school student who doesn't go on to college is as literate and numerate as a similar 1950s student, Fifties skills are inadequate to Nineties needs and uncompetitive with the products of foreign school systems.

The character of what workers need to know has changed too. Says Kiichi Mochizuki, a former Japanese steel executive who heads the Pacific Institute, a New York City research group: "These days, with computerized factories and digitally controlled machines, mathematics are very important for factory operations. When you talk about skill—the word 'skill' is wrong: It implies manual dexterity to carve the wood or hit something with a hammer. Now skill is mental rather than manual."

LARRY KERRIGAN, 31
Pipefitter, Phelps Dodge
Morenci, Arizona

"My wages aren't really keeping pace. I don't feel like I'm getting ahead."

How will today's workers master statistical process control, or the careful measurement and self-inspection needed for flexible manufacturing's frequent tool changes, if they don't have basic math and reading skills? Corporate executives increasingly are pressuring educators to ensure this basic competence. But they need to take the next step and ask for high school transcripts when hiring, to pressure students to cooperate with teachers and take these matters seriously.

What are managers to do in the meantime with the more than 80% of the work force of the year 2000 already out of school and on the job? It turns out that the requisite skills are neither hard for workers to learn nor prohibitively expensive for companies to teach. Akron-based private investor David Brennan has discovered this in four of the 17 manufacturing companies he owns with two partners. He found that 30% of his workers read below the fifth-grade level, and two-thirds were below that level in math. So Brennan installed computer teaching systems in factories making such things as brakes and stampings. These personal computers use Wicat Systems educational software to teach vocabulary, reading, and math in a jazzy, colorful, animated-cartoon format at the learner's own pace. Brennan invited his employees—and required deficient ones—to use them. He calculates it will take three years, at two hours a week of company time, to get workers up to the eighth-grade competency he thinks necessary to boost efficiency.

Since the machines arrived, he says, workers are filled with newfound confidence, and employee turnover has fallen sharply. Brennan predicts that in three years the program will raise productivity at the four plants 50%. The cost? Says Brennan: "In a 500-person plant, in five years I will invest $3 million for the equipment, the facilitators, and the company time the workers spend learning. I wouldn't hesitate to spend the same amount on a machine that five years from now is going to be increasing my productivity by $1 million a year."

CRUCIAL as higher skills are, management is the decisive variable in determining how good a given set of workers will be. As the world economy's tectonic plates shift, ways of organizing and managing work no longer differ from one another by nuances but by light years. Traveling from company to company today, it's easy to feel like Gulliver going from the academy of zany scientists at Lagado to the rational land of the Houyhnhnms, so much does each company feel like a world in itself, structured by distinct principles that determine the character and quality of life and work there. Alter that structure and, presto, the form of life changes too.

Today hierarchical systems designed to

continued

control workers and break down production into its smallest component tasks are obsolete. They are steadily giving way to looser, more decentralized arrangements that give workers more autonomy and responsibility in the hope of enlisting their pride, judgment, and creativity. The aim: to get them to think constantly about how the job they know best could be done better; to have them be flexible, so they can do more than one part of the process, when needed; and to care about the quality of the job they do. For unlike efficiency, which can be quantified by productivity, quality is hard to measure. And since quality is both crucial to competitiveness and an attribute that resides in every part of the process, it must be put in by every producer, not sprinkled on later.

Look through workers' eyes and see how deeply the way they are managed affects their sense of whether they can do their best. Take the miners at Phelps Dodge's Morenci copper mine, a Brobdingnagian open pit punctuating an arid Arizona moonscape. In 1983 the mine was convulsed by a bitter strike. It ended by management's breaking the unions, part of the pushing back of unionism that is a key trend in current labor relations. That was truly a watershed. In the past decade Morenci's annual productivity has ballooned from 100,000 pounds of copper per employee to more than 300,000. In the same period, accidents declined from 14 per million employee hours to fewer than two, evidence not of more pressured but of smarter work.

THAT'S HOW the workers see it. Under the old union dispensation—typical of its sort—workers were isolated units, cut off from one another, and as cut off from their supervisors as if they were in solitary confinement. All that has changed. Says mechanic Frank Reyes, 48: "It's a lot better now. We're allowed to speak our own opinion more liberal. We used to have to go through the union. We were told whether to, or not to, speak. It wasn't based on its being the right thing." Adds pipefitter Larry Kerrigan: "I can go up to my general foreman and talk to him. I can get more across that way than going through, like, an interpreter." Kerrigan has suggested changes in work and safety conditions that ultimately were adopted.

Now too, Kerrigan is part of a flexible team rather than a cog in an ironbound machine. Says he: "It's more like 'workers together' instead of 'the union says this is my job, and I can't do nothing else.' You can kind of cross-train in different areas. I've worked with pump repair when I was needed and there really wasn't all that much work in the pipe shop that day. It's interesting." And efficient.

"It's more 'workers together,' instead of 'this is my job and I can't do nothing else.' "

Service companies as well are embracing what might be called management by empowerment. In a job as routine as manning the "help line" at IDS Financial Services in Minneapolis, Stephen Magistad (the man on FORTUNE's cover) feels he's going somewhere as he fields calls from salesmen about forms and procedures for selling mutual funds or from clients calling about such things as getting their fund earnings paid out monthly. Says college grad Magistad: "In another company this would be a dead-end job. But it got me into a good company with a history of being very creative in how it uses the human resource."

His managers, he says, continually ask how they can help, how his working conditions can be made better: "You feel like you're empowered, that what you say has merit for those who manage you." More important is the training the company offers. "They really try to develop you," says Magistad. As a result, opportunity abounds: "It's almost a matter of how high I want to go." His goal is to be a manager in IDS's communications department, and many of his highly motivated help-line colleagues also believe they can climb high into the managerial ranks.

Conversations with two groups of auto workers, earnest and articulate but otherwise as opposite as the masks of comedy and tragedy, dramatize how radically the old organization of work and the new differ in giving people the power to do their best. Mutinously angry, seven General Motors assemblers at the Local 594 union hall in Pontiac, Michigan, explained why they thought the whole system at the three plants where they worked hindered them from making the best trucks and four-wheel-drive vehicles they could. The organization they describe, like a relic of a bygone age, sounds like the kind that called unions into being in the first place, matching rigidity and confrontation with rigidity and confrontation. (For the latest developments at GM, see Managing.)

THESE WORKERS—in their 30s, with 15 or so years' seniority—feel that in the eyes of management they don't even have identities. Says Mark McKinney, 32: "To General Motors you're a number. You're number 7795. This department needs a body, that department needs a body; they send the short person up to the horse-collar line where everything is way up here, and they'll take some long tall person and stick him down on the frame line or in the pit. And then they get hurt."

Is management interested in hearing their views on how to do the job? Says Darlene Fiorillo (the woman on FORTUNE's cover): "Down on the floor, you can see the operation, and you know how it's supposed to be done. Up there, upper management's saying, 'Nah, nah, we can do it cheaper and more efficient if we do it our way.' So these people up there that are calling all the shots are not experiencing what really needs to take place on the floor. And they don't really care, because they're thinking, 'Short-term dollars and cents, it looks real good,' and we're here down on the floor thinking, 'Long term, it's our job.' Plus we want to give a person exactly what they bought: a perfect vehicle for the price. Any auto worker would tell you that."

"These people calling the shots are not experiencing what needs to take place on the floor."

What would these workers tell management, if asked? Says McKinney: "I'll tell you what they should do. They should not concentrate so much on the quantity—and let us work on the quality. They're so concerned with trying to squeeze another four or five seconds of work out of us that they have forgotten to fill in the little holes on the quality." Not, all hasten to add, that the quality is bad. But it could be better. Says Jim Hall: "If you notice something wrong with the job, you say, 'Hey man, check this out.' A supervisor looks at it, calls the superintendent, and

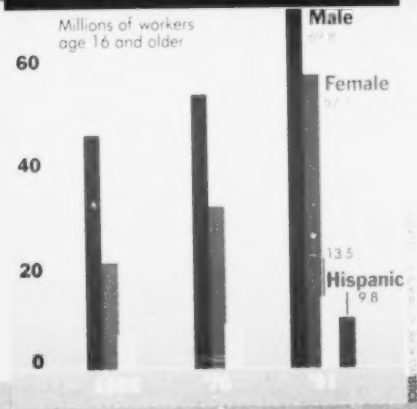
continued

THE ECONOMY

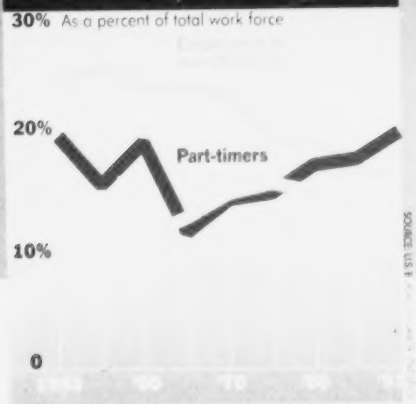
TODAY'S U.S. WORKER

Stacked up against their parents and their foreign counterparts, American workers—more schooled and putting in longer hours than ever—perform impressively. Their productivity, the industrial world's highest, is growing faster than Germany's and as fast as Japan's.

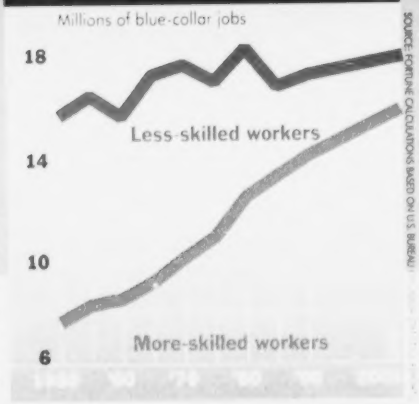
MORE FEMALE & MINORITY ...



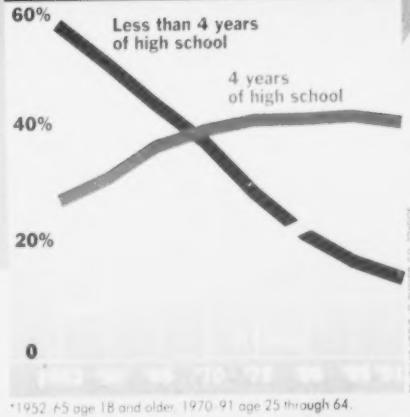
MORE SERVICE & PART TIME ...



MORE SKILLED ...

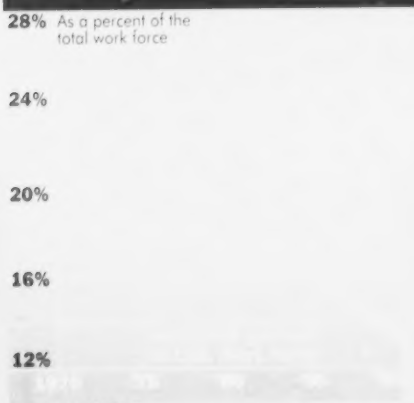


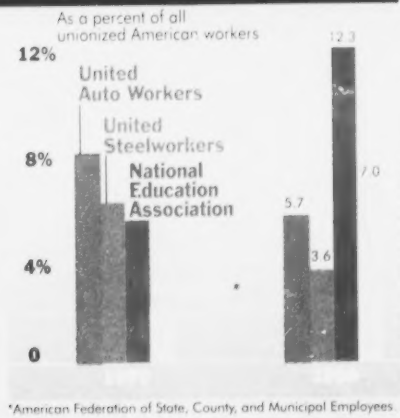
BETTER EDUCATED*...



*1952: 65 age 18 and older. 1970-91 age 25 through 64.

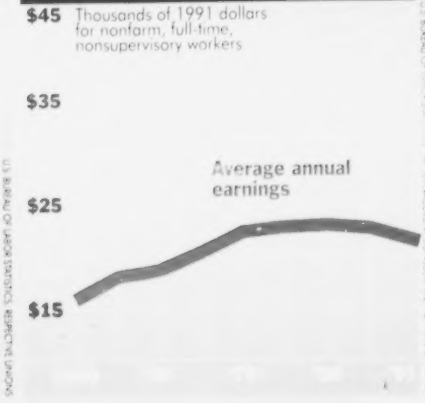
LESS UNIONIZED (ESPECIALLY IN FACTORIES) ...





*American Federation of State, County, and Municipal Employees

... AND LESS REWARDED



RENEE KLEIN FOR FORTUNE

How They Compare

Pay
Hourly compensation costs for production workers in manufacturing; in 1990 dollars, using purchasing power parity exchange rates

U.S.: $14.77 **Western Germany: $14.67**
U.K.: $10.60 **Japan: $9.22**

Loyalty to the company
Strongest employee identification with company values = 100

U.S.: 56 **Japan: 85**
Western Germany: 64 **U.K.: 48**

Service employment
Including managers, administrators, and technical personnel

U.S.: 70.7% **U.K.: 68.7%**
Japan: 58.2% **Western Germany: 56.1%**

Home ownership rates
Percent of all households

U.S.: 59% **U.K.: 67%**
Japan: 60% **Western Germany: 40%**

Sizes of homes
Average, in square feet

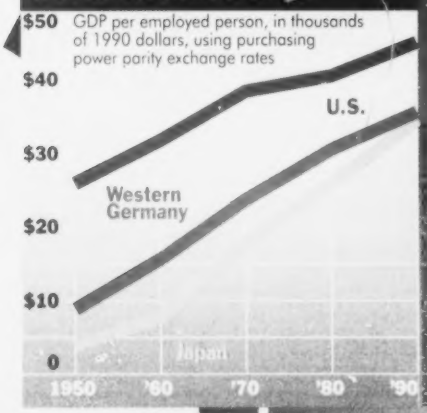
U.S.: 1,773 sq. ft. **Sweden: 1,250 sq. ft.**
U.K.: 1,050 sq. ft. **Japan: 800 sq. ft.**

Car ownership
For 1990, passenger car registrations per capita; does not include light trucks

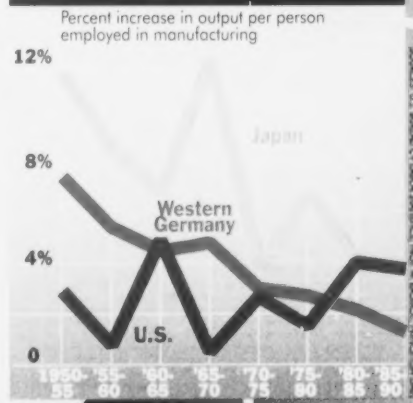
U.S.: 0.58 **Western Germany: 0.48**
U.K.: 0.41 **Japan: 0.28**

SOURCES: U.S. BUREAU OF LABOR STATISTICS; "FROM RESEARCH IN WHERE WE STAND: 1992, BY MICHAEL WOLFF AND CO.; FORTUNE CALCULATIONS BASED ON DATA FROM MOTOR VEHICLE MANUFACTURERS ASSOCIATION OF THE U.S.

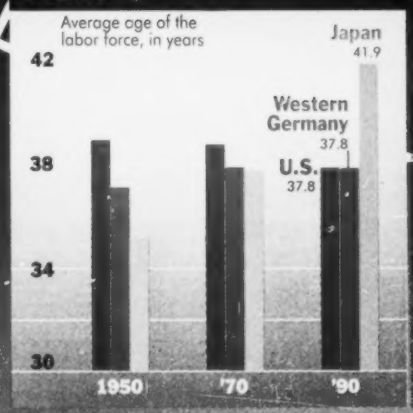
More Productive



And Staying Ahead ...

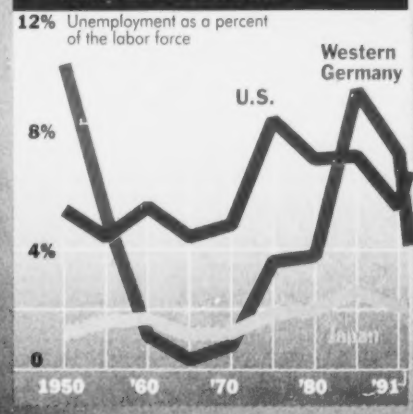


Young ...



Hardworking ...

... And Less Secure



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the superintendent says, 'Hey, we ain't got no time. Run 'em. We'll just try to do the best we can in repair.' Now how much [defective] stuff is getting out the door? And you know who gets blamed for it. We do. It makes me mad."

Fiorillo and McKinney are enrolled in a company-funded program to get their high school diplomas to be ready to face a non-GM future, if necessary. Says Fiorillo: "I'm the fourth—and last—generation of my family to work here." Adds Gene Caverly, 38: "There's no way your children can even dream of getting a job with General Motors. It'll just get smaller and smaller and smaller."

Sit down with a comparable group of American assembly-line workers at Honda's gleaming, 21st-century plant in East Liberty, Ohio, where automated buggies beeping like R2D2 bustle parts to the line, and you feel as if you're talking to workers who've truly lost their chains, as content and optimistic as their GM counterparts are resentful and demoralized. Even though they are all dressed in identical ice-cream-man company uniforms, these "production associates," as Honda calls its workers, feel anything but pawns of remote managers. Says Soni Tron: "There's not any idea you can have that people are not willing to listen to at any level. They want to help you develop it, and they'll go to any length to help you in any way they can."

NOR IS IT HARD to convey those ideas upward. Workers and management eat in the same cafeteria at the same long tables, in contrast to typical Detroit practice where management mainly dines with itself. Tron once plopped down in the seat next to the head of Honda's American manufacturing operation to give him a piece of her mind: She'd been working on trying to get an employee assistance plan started for two years and felt that no one had considered it seriously. The president listened; the plan was established. As for the only slightly less august plant manager, Ed Buker, says Sandy Johnson, workers don't hesitate to pick up the phone and call him. "If you've got trouble," she says, "all you have to do is say, 'Hey Ed, we've gotta meet with you.' He'll say, 'No problem.' "

Why is Honda management so quick to listen? Mark Russell, 31, a paint shop worker, explains: "Honda's thing is, the guy on the line is the gut professional on his job, and he knows what is best for that process at that time. He knows best how to make it better." Adds assembler Calvin Thomas: "You give us an opportunity to have a say-so, and we can do a good job."

"Depending on how a person's treated and how he's trained, anybody can achieve."

Beyond mere listening, Honda management often turns significant decisions over to workers. Says Tom Spangler, 32, from bumper painting: "When we make a production change, we redesign the way our department is laid out ourselves. We don't have a separate company come in and say, 'We're going to be doing a new style of bumper; we've got to modify the equipment.' We work some overtime, and we do it. This way we know how everything's put together and works in our department. You're not just another machine doing your job."

All this makes workers more than workers. Says Soni Tron: "We may not be classified as management, but many of us are doing management-type jobs. They're letting us see what we can do with our abilities, and helping us, and then promoting us accordingly." The help is a vast array of free classes, some of them required, in everything from problem solving to the corporate culture to the technical details needed for most jobs in the plant. Says Sandy Johnson: "All you have to do is go over and say, 'I'm interested.' They'll let you do anything. You can just go as far as you want." Almost all of the eight workers sitting around the table with FORTUNE had taken some of the voluntary classes.

How far can they go? "That'll be my choice," says Sherri Miller, from Vehicle Quality. "It depends on which department I want to work for, and what motivates me." All at the table nodded in vigorous assent, mentioning co-workers who'd become supervisors and sometimes senior managers. Even seemingly unpromising co-workers have shaped up and moved up at Honda, says Mark Russell: "Depending on how that person's treated and how he's trained, anybody can achieve."

At Nucor you can see a new labor elite in action—an elite that is a pure meritocracy, not the old privileged class based on union power in oligopolistic industries. Nucor goes about as far as you can go in letting workers manage themselves, and with its self-managed teams it has achieved steelmaking breakthroughs competitors believed impossible. Its organizational principle most resembles one of those commando caper movies, where handpicked, spunky men, forged by grueling training into a confraternity, venture out to do a daring undertaking under a leader who is more quarterback than boss.

SUCH ANYWAY is the fanciful image that comes to mind when you listen to Nucor's workers tell about their corporate history and culture. Some 3,000 people turned up in 1988 to apply for jobs at Nucor's planned mill in Crawfordsville, Indiana. They were winnowed to 400 in several hiring stages by an arduous battery of interviews and tests that left the chosen feeling chosen indeed (though mill manager Keith Busse says a third to a half of the applicants could have done the job). Says arc furnace operator Michael Grundy, 35: "We're one notch above everybody else who works around here, in common sense and in thinking on our feet." The first hundred hired built the mill with their own hands, alongside the contractors, giving them a feeling of proprietorship and mastery. Says lead mill adjuster Gary Hardwick, 37, gesturing at the complex machinery through which a glowing red ribbon of semisolid steel glides: "I helped unload all this stuff. I remember what it all looked like when it was still sitting in the crate."

"We weren't familiar with the steel industry, so we didn't know what couldn't be done."

After some 150 key workers returned to Crawfordsville from specialized training in Germany, California, and Utah, the 400 started up the first mini-mill to try to cast sheet steel, supposedly impossible. Says Hardwick: "We weren't familiar with the steel industry, so we didn't know what couldn't be done." It took ingenuity to iron out the glitches in the first few months; when the mill finally did run smoothly, Nucor's people acquired an extra dollop of the macho swagger that

hot-metal men have. "I was here when we ran the first bar through," says Hardwick. "That's kind of exciting, knowing you're the first guy in the world to run a thin slab through a four-mill rolling stand."

Everyone on each of the mill's five- to ten-man teams knows most jobs the team handles. Says Hardwick: "When the next guy has problems, you understand what he's going through. With such small teams, it's more like a brother. Everybody's looking at his fellow teammate to make sure he's safe." As for the team supervisor, says Hardwick, "he's more like a co-worker than a boss. We look to him for the big decisions, like downtime to correct a quality problem. That's why he gets paid more. But otherwise he's a member of the team."

Each worker is also looking at his teammates to make sure they're performing, since all get identical bonuses—which can amount to 150% of base pay—determined by the group's performance. Mike Grundy's group earned $50,000 to $59,000 each last year, working four days of 12-hour shifts, alternating with four days off, the equivalent of a 42-hour week. Says Grundy: "When I get paid, I get paid damn well."

DURING the industrial revolution, one of the gravest objections to industrial capitalism was that the division of labor, its key principle, also divided men and turned people into nothing but their hands. It stunted individuals, stifling their most human faculties of heart and brain and making them animated machines, shaking with the same repetitive movement for ten or 12 hours a day as if from palsy.

The economic transformation now under way in the United States undeniably imposes disappointment and often hardship on many for whom high-paying, low-skill jobs will not be found. But it it has a larger, deeply moving consequence for the American worker. Says Garry Berryman, who runs Honda's training center in Ohio: "An organization, with all its greatest muscle—machinery, equipment, money, facilities—can't do anything unless it's got a brain. The brain is the people." No Gilded Age mill owner, and scarcely any 1950s corporate chieftain, would have understood that statement. That so many companies today have taken that principle to heart, calling upon all the workers' abilities and genuinely democratizing organizations to do so—surely that, in the profoundest sense, is progress. F

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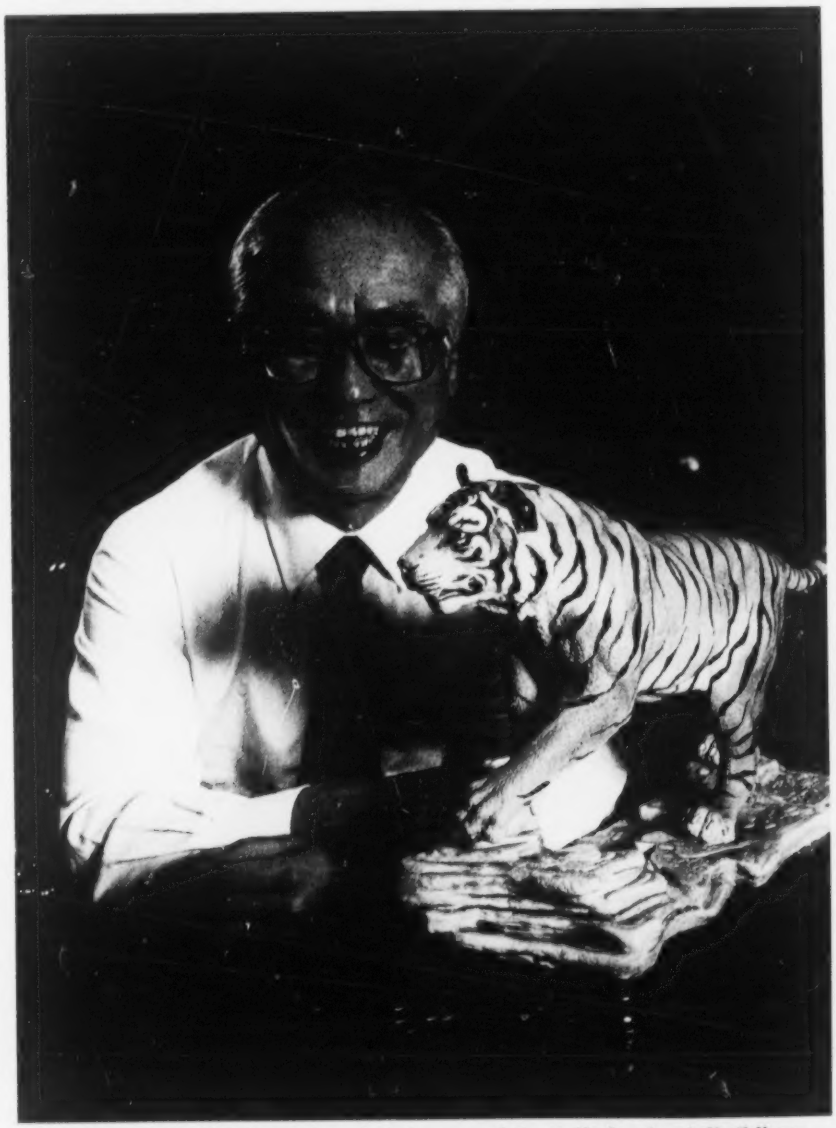
KOREA'S TIGERS KEEP ROARING

The government doesn't love them anymore, and wages have exploded. But Korean conglomerates are fighting back with aggressive new global strategies. ■ *by Louis Kraar*

SOUTH KOREA'S long quest to be the next Japan seems right on schedule. The country's giant conglomerates are moving into every market on earth. Goldstar has bought a 5% stake in Zenith Electronics in the U.S. Hyundai cars are rolling into Europe. Samsung is pumping oil in Western Siberia and setting up television plants in Eastern Europe. Most dramatically, Daewoo Chairman Kim Woo-Choong has made deals to build factories in North Korea, finally bridging the heavily armed border of the Cold War's last divided nation.

But look more closely. Much of that frenetic activity is aimed at countering South Korea's eroding competitiveness. It's not that the economy is in trouble; gross national product has grown an average 9% annually for the past four years and should rise nearly as much this year. Even so, the faltering of what has been a fabulous export machine has created a crisis atmosphere in Seoul. Says Park Seong-Yawng, chairman of the Kumho Group, a transportation conglomerate, in typical overstatement: "The nation is inching toward an economic bust." The Korean share of American imports peaked in 1988 at 4.6% and last year fell to 3.5%. The trade deficit, mostly with Japan, was nearly $10 billion last year, more than double that of 1990.

Part of the problem is that South Korea's role as a mass producer of low-priced consumer goods is being taken over by Southeast Asia, China, and Mexico. After military rule ended in 1987, an explosion of strikes led to the highest wages in Asia outside Japan. The Korean economy is now undergoing what President Roh Teh-Woo terms "a grave transition." Says Kenneth Park, a thoughtful, American-educated economist and president of Samsung Petrochemicals: "We had this fixation on becoming a second-rate Japan, but now we've got to stress originality."



Daewoo Chairman Kim Woo-Choong always looks for new markets—and he found one in North Korea.

PHOTOGRAPHS BY H. EDWARD KIM

When wages were low, rows of women wired VCRs. Now just one handles the job in this Samsung plant.

On top of that, the longstanding partnership between government and industry—which sometimes made the industrial policies of Japan Inc. look laissez-faire—is breaking down. Korea's big conglomerates, known as *chaebol,* grew rapidly after the Korean war on low-cost loans and other government incentives because political leaders wanted to build potent international competitors. In the new political climate, though, ordinary Koreans have come to see these companies, still largely run by founding families, as too powerful. The top five groups (see table) account for nearly 62% of GNP. Politicians, who have to face voters now, have responded with unprecedented *chaebol* bashing.

As the big conglomerates fight back, new openings will develop for the West. The Koreans are looking for business allies, especially American companies willing to share technology. At the same time, South Korea is opening its domestic market and stock exchange wider and faster than Japan did.

More good news for world business is that Korea, with a population of 43.2 million, has become a consumer society. Its roads are crammed with 2.26 million cars, nearly triple the number just four years ago. South Koreans, whose incomes average $6,590 a year, are hungry for U.S. products, including a few Cadillacs as well as a lot of sporting goods, cosmetics, and capital equipment for automating factories. And this is one growth market where Japan is handicapped: Koreans still resent Japanese colonial rule from 1910 to the end of World War II.

There are also lessons for managers everywhere in the ways the *chaebol,* which rank among the world's biggest enterprises, are adapting to change. The Koreans are learning to operate amid conflicting demands—boosting exports without going broke through deep price cutting, and motivating employees and raising efficiency without being authoritarian. Says Yoon Young-Suk, president of Daewoo's trading arm: "Big business groups are the brains of our economy."

STILL, the adjustments are wrenching. Hyundai, the largest automaker, is feeling the most pain from the breakdown of cozy government-business relations. Chung Ju-Yung, 76, Hyundai's irascible founder, a rice farmer's son who became a billionaire, has attacked President Roh for making the *chaebol* the whipping boys of his economic policies. Chung got slapped, he says unfairly, with a record $180 million bill for personal income taxes late last year. And Hyundai claims to be the target of a continuing barrage of official actions—including intense tax audits and pressures on banks not to lend.

Fighting back, Chung formed his own political party and quickly became an influential political figure. His party won 10% of the seats in recent parliamentary elections, part of a larger rejection of the government at the polls. Chung, who accused the Roh regime of collecting questionable political donations from corporations, may even run in the presidential election later this year. Evidently preparing the way, he has vowed to give up his shares in Hyundai's 14 public companies, a portfolio with an estimated value of $2.6 billion. His political triumph should ease government pressures on his conglomerate, which has complained in a petition: "Normal management in Hyundai has become impossible."

It may not be normal, but Hyundai and other *chaebol* are adapting well to new challenges. To hone their competitiveness, they are downsizing, decentralizing decisions, and even spinning off companies. Says Sean Goldrick, chief of research in Seoul for stockbroker James Capel: "The *chaebol* are beginning to break themselves up for their own reasons."

Samsung wants to concentrate on electronics and chemicals, so it has spun off its department store chain and paper manufacturing business. Lucky-Goldstar Chairman Koo Cha-Kyung has told key executives to run their own shows without bothering him. Hyundai Chairman Chung Se-Yung, 63, the founder's brother, describes himself as last man to boss the entire group. Says he: "Hyundai no longer wants to have the bad image of a *chaebol*. It will change to an assembly of totally independent companies."

Ultimately the need for new capital will convert family fiefdoms into public corporations. Traditionally, the *chaebol* have relied on bank loans rather than the sale of stock to raise cash. In an effort to curb what it sees as too much diversification, however, the government has pushed interest rates up as high as 20%. A shift to equity will create lots of blue-chip Korean stocks in a market finally opening for foreign investors. *continued*

REPORTER ASSOCIATE *Thomas J. Martin*

TOP FIVE KOREAN CONGLOMERATES

Company CEO	1991 Sales in billions	Main Business
Hyundai Chung Se-Yung	$51	Construction, autos, heavy machinery, petrochemicals
Samsung Lee Kun-Hee	$49	Electronics, heavy industry, petrochemicals
Lucky-Goldstar Koo Cha-Kyung	$26	Electronics, chemicals, machinery, metals
Daewoo Kim Woo-Choong	$25	Heavy machinery, autos, electronics, shipbuilding, construction
Sunkyong Chey Jong-Hyon	$13	Petroleum products, textiles, polyester film, magnetic tapes and disks, shipping

FORTUNE TABLE

IBM veteran Ronald Olsen (second from left) heads Sunkyong's New York City strategy team.

One important strategy for the *chaebol* has been formation of international alliances to acquire expertise and new technology. Lucky-Goldstar Group is a prime example. It was getting nowhere trailing the Japanese by a few years with me-too consumer products. Goldstar, its electronics company, lacked the technology for innovative new products, and no Japanese company was willing to help. So who might? How about the last American TV maker? Emboldened by advice from McKinsey & Co., Goldstar bought a share in Zenith last year.

One result: Goldstar soon will make slim TV sets with large screens by using Zenith's patented "flat tension mask" color picture tube. The alliance also strengthens Zenith. It gets an infusion of cash for both equity and licensing, plus a Korean ally with plants in Europe, the Middle East, and Asia.

EVEN ALLIANCES that turn sour can help a Korean company. Daewoo and General Motors are breaking up a $200 million joint venture in autos, but they still plan to work together. Daewoo Chairman Kim insists, "This is a friendly divorce." After 14 years the partners have decided that their goals are too different. GM wanted to participate in the growing Korean domestic market and fill a niche in its U.S. product line with a Korean-built subcompact called Pontiac LeMans. But Kim had global ambitions. Ultimately his zeal for exports clashed with American concern for profits, a classic East-West business conflict.

Kim is resolving the conflict by buying GM's half of Daewoo Motor while maintaining an alliance. The Korean automaker will continue supplying the LeMans to the U.S. market, at least for a few more years. GM is sticking with three other Daewoo joint ventures that profitably export auto components. Meanwhile Kim has made some headway in his home market with a minicar produced by another Daewoo company under license from Suzuki, a GM affiliate in Japan.

The Cold War was particularly tough on South Korea, not only because it has had to spend up to 6% of GNP on defense but also because most of the old communist bloc countries rebuffed its companies out of solidarity with North Korea. Now South Korean manufacturers are finally able to reach eager customers in Eastern Europe, the former Soviet Union, and, increasingly, China. Samsung expects to boost trade with China and Russia, including sales of capital goods, by 50% this year, to $1.2 billion. The South Korean government, despite its tensions with the big companies, is promoting exports by making loans to Russia and Eastern Europe.

Daewoo has signed up to build a large plant for making 1.6 million TV picture tubes annually in Hanoi, where workers cost $30 to $50 a month, vs. $1,500 monthly in South Korea. A nonaggression pact between North and South Korea opened the way early this year for Daewoo's Kim to negotiate nine joint venture export factories in North Korea to turn out garments, shoes, luggage, and kitchen utensils. Without fanfare, Samsung is also setting up an apparel plant in a suburb of Pyongyang, the North Korean capital. Its products will bear a Samsung label saying simply: "Made in Korea."

Many Korean executives have degrees from U.S. universities, but Chey Jong-Hyon, 62, chairman of Sunkyong, has found another way to tap into American management methods. Chey, who earned a master's degree in economics at the University of Chicago in 1961, set up what he calls the Office of the Chairman for Management and Planning (OCMP) in New York and hired 15 Americans headed by IBM veteran Ronald D. Olsen to staff it. Says Chey: "Koreans think they understand America, but they don't know what they don't know." His Americans not only teach Korean managers to operate better in the U.S. but help Sunkyong get into new businesses in Korea.

Steadily upgrading production machinery and the people who run it is an old Japanese strategy, but the Koreans are doing it with new vigor. Samsung, the *chaebol* with the most professional management, last year invested $1.2 billion—42% of its capital budget—on equipment to raise efficiency. As a result, Samsung expects to raise productivity of both electronics factories and its shipyard an average 27% this year. On color TV assembly lines, each employee will turn out 21.8 sets this year, up from 16.7 last year. Samsung avoids layoffs by retraining workers for other jobs, a program that greatly enhances morale. In offices, Samsung is trying to increase efficiency by cutting out meetings and written reports.

Though criticizing big business has populist appeal in Korea, it makes little economic sense. Bureaucrats claim that the constantly diversifying *chaebol* leave little opportunity for small and medium-size enterprises. In fact, these kinds of companies are often *chaebol* suppliers. Officials also argue that if conglomerates focused on no more than three core businesses, they would become more competitive globally. The answer to that is, diversity enables the corporate giants to use the cash flow from mature businesses for new industries, such as semiconductors. In any case, market forces are a more efficient regulator.

FINALLY, many Koreans maintain that family control of ownership and management of the *chaebol* represents excessive concentration of power. Already, that supposed power is being diluted as companies go public and increasingly rely on professional managers—just as America's pioneering capitalists did. Clearly, South Korea cannot afford to restrict its most successful corporations and exporters. F